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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,101	06/26/2001	Philip DesJardins	PA1590US	4429

7590

07/09/2003

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EXAMINER

MAI, RIJUE

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/893,101

Applicant(s)
DesJardins et al.

Examiner
Rijue Mai

Art Unit
2182



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-30 is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-20, and 24-27 is/are rejected.
- 7) ☒ Claim(s) 8-10 and 21-23 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jun 26, 2001 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

1. Claims 1-30 are presented for examination.

Claim Objections

2. Claim 4 is objected to because of the following informalities: in claim 4, line 2, after “configured to”, “filtered” should be changed to “filter”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckert et al. US pat. 5,659,473 (hereinafter Bruckert) in view of Kurano et al. US pat. 6,069,902 (hereinafter Kurano).

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As per claim 1, Bruckert teaches a system for packet arrival time detection (see abstract), comprising: a receiver configured to receive a signal (see col 6, lines 33-35, Fig 1); the receiver, configured to produce a packet arrival time output (see col 7, lines 1-4, lines 27-36); and a power estimator, coupled to the receiver, configured to estimate the power in the received signal and provide the estimated power to validate the packet arrival time output (see col 7, line 60-col 8, line 7, col 12, lines 16-63).

As per claims 1, and 11, Bruckert does not specifically teach ~~that~~ “a packet arrival time detector” as in the above claims.

Kurano teaches a method for receiving a broadcast, wherein the recording / reproducing apparatus includes an arrival timing detector 30 (see col 7, lines 12-15, ele. 30, Fig 4).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to allow Bruckert's system to make use of Kurano 's teachings to include a *packet arrival time detector* , because it ensures the system to validate its calculated signal arrival time and to enable detection of signal arrival, thus, providing lower sensitivity to false alarm.

Referring to claims 2-7, 11-12, Bruckert further teaches the system wherein the power estimator includes a squaring device configured to square the received signal to produce the estimated power of the received signal (see col 12, lines 16-22); wherein the power estimator includes a bandpass filter configured to filter the received signal and to provide the filtered received signal to the squaring device (see col 9, lines 17-21); wherein the power estimator includes a lowpass filter configured to filter the output of the squaring device to produce a

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filtered power estimate of the received signal (see col 9, lines 17-40); wherein the power estimator includes a Hilbert transform configured to produce an analytic signal comprising a real component and an imaginary component (see col 11, lines 34-38); wherein the real component of the analytic signal is the received signal and the imaginary component of the analytic is the received signal and the imaginary componnet of the analytic signal is the quadrature signal of the received signal (see col 10, lines 13-65); wherein the power estimator includes a bandpass filter configured to filter the received signal and to provide the filtered received signal to the Hilbert transform (see col 9, lines 17-41); configured to detect an increase in the estimated power that indicates a packet is being received by the receiver (see col 12, lines 16-22); wherein the increase in power is about ten decibels (see col 13, lines 17-30).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).



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6. Claims 13-20, 24-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Bruckert et al. US pat. 5,659,473 (hereinafter Bruckert).

As per claims 13 and 27, Bruckert teaches a method and a system for packet arrival time detection (see abstract), comprising: receiving a signal (see col 6, lines 33-35, Fig 1); processing the received signal to produce a packet arrival time output (see col 7, lines 1-4, lines 27-36); processing the received signal to produce an estimate the power and validating the packet arrival time ourput using the estimated power (see col 7, line 60-col 8, line 7, col 12, lines 16-63).

Referring to claims 14-20, 24-26, Bruckert further teaches the system wherein the step of processing the received to produce the estimated power includes squaring received signal (see col 12, lines 16-22); wherein the step of processing the received to produce the estimated power includes includes a bandpass filtering the received signal (see col 9, lines 17-21); wherein the step of processing the received to produce the estimated power includes includes a lowpass filter the square bandpassed-filtered to produce power estimate (see col 9, lines 17-40); wherein the step of processing the received to produce the estimated power includes includes a Hilbert transform configured to produce an analytic signal comprising a real component and an imaginary component (see col 11, lines 34-38); wherein the real component of the analytic signal is the received signal and the imaginary component of the analytic is the received signal and the imaginary componnet of the analytic signal is the quadrature signal of the received signal (see col 10, lines 13-65); wherein the power estimator includes a bandpass filter configured to

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filter the received signal and to provide the filtered received signal to the Hilbert transform (see col 9, lines 17-41); configured to detect an increase in the estimated power that indicates a packet is being received by the receiver (see col 12, lines 16-22); wherein the increase in power is about ten decibels (see col 13, lines 17-30).  

Allowable Subject Matter

7. Claim 28-30 are allowed.
8. Claims 8-10 and 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is the statement of the reasons for the indication of allowable subject matter:

The prior art fails to teach or suggest the bandpass filter is configured to have a frequency response with notches at frequencies where narrow band interference is present as claimed in claim 8 and 10.

The prior art fails to teach or suggest the bandpass filtering of the received signal removes narrow band interference as claimed in claim 21.

The prior art fails to teach or suggest wherein the power estimator includes a first squaring device configured to square the real component of the analytic signal, a second squaring device configured to square the imaginary component of the analytic signal and an adder

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configured to add the squared real component and the squared imaginary component to produce the estimated power as claimed in claims 9, 22-23 and 28-30.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Rijue Mai** whose telephone number is (703) 308-7098

The examiner can normally be reached on Monday-Thursday from 7:00 AM to 4:30 PM, and alternate Friday Eastern Time. The examiner can also be E-mailed at **Mai.Rijue@uspto.gov**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jeffrey Gaffin, can be reached on (703) 308-3301.

12. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

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Any response to this action should be mailed to:

Assistant Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Or faxed to:

(703) 746-7239, (for formal communications intended for entry)

Or:

(703) 746-7240, (for informal or draft communications, please label

“PROPOSED” or “DRAFT”)

EXAMINER

Rijue Mai

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July 3, 2003

A handwritten signature in black ink, appearing to read 'R. Mai', with a long horizontal stroke extending to the right.